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This report summarizes two studies on the influence of parent behaviors on the development of their children's beliefs that they (the children), rather than external agents, cause and are responsible for the reinforcements they receive. Children's beliefs in internal control were correlated with ratings of the mother's behaviors when she was in interaction with the child (study A, with 41 children and their mothers), interview data from mothers and fathers on the parent-child relationship (study B, with 40 children and their parents), and a questionnaire which assessed parents' positive and negative reactions to their children's achievement behavior. Findings indicated that various aspects of the parent-child relationship are significant antecedents, especially in the relationship between mother and child. The more protective, nurtural and loving the mother, the greater was her child's belief in internal control. Parental dominance and rejection appear to discourage girls' beliefs in internal control. A trend was also found for mothers' accelerational attempts to relate positively to their sons' (but not their daughters') beliefs in internal control. On the questionnaire measure, paternal praise generally correlated positively with children's beliefs in internal control, and paternal criticism related negatively to such beliefs. (Author/MS)

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Abstract

This report summarizes two studies on the influence of parent behaviors on the development of their children's beliefs that they, as compared with external agents, cause and are responsible for the reinforcements they receive. Children's beliefs in internal control were correlated with ratings of the mother's behaviors when she was in interaction with the child, interview data from mothers and fathers on the parent-child relationship and a questionnaire which assessed parents' positive and negative reactions to their children's achievement behavior. Findings indicated that various aspects of the parent-child relationship are significant antecedents, especially in the relationship between mother and child. The more protective, nurturant and loving the mother, the greater her child's belief in internal control. These findings were stronger for boys than for girls. On the other hand, parental dominance and rejection appear to discourage girls' beliefs in internal control. A trend was also found for mothers' accelerational attempts to relate positively to their sons' beliefs in internal control, but not to those of their daughters. On the questionnaire measure of parental reactions, paternal praise generally correlated positively with children's beliefs in internal control, and paternal criticism related negatively to such beliefs.

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Parental Antecedents of Children's Beliefs in Internal-External Control of Reinforcements in Intellectual Achievement Situations[1]

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A number of experimenters have reported a wide range of individual differences in the degree to which persons believe they are able to control and are responsible for the events which occur in their lives. On the one extreme, there is the person who attributes all things which happen to him to his own behavior (internal control), while on the other, there is the individual who views outcome events as determined by such external factors as fate, luck, accidental happenings and the actions of other persons (external control). This psychological variable has been called internal vs. external control of reinforcements. Research with both adults and children has demonstrated the utility of this concept in predicting behavior and this work recently has been summarized by Rotter (1966) and by Lefcourt (1966). One study has shown that beliefs in internal control are well-

established during childhood and increase little from the third through the twelfth grades (Crandall, Katkovsky & Crandall, 1965). Little research, however, has been reported on the antecedents of beliefs in internal or external control. Since parents are the most salient and consistent socializing agents of children during their early years, it seems likely that important antecedents are to be found in parent attitudes, behaviors and in the nature of parent-child relationships.

Chance (1965) has reported that maternal permissiveness, early independence training and mother's flexibility of expectations for their children were significantly related to their sons' beliefs in internal control, but no significant relationships were found between these maternal variables and daughters' beliefs. In contrast with the results of Chance, Cromwell (1963) reports that adult normal males who held external/control orientations perceived their mothers as protective. The apparent inconsistency between the findings of Chance and those reported by Cromwell may be the result of numerous methodological differences in the studies, including the use of different measures of internal and external control and the fact that Chance obtained data directly from mothers while Cromwell used retrospective reports from adult subjects.

It seems probable that many variables which describe characteristics of learning situations play a part in promoting beliefs in internal and external control. One variable likely to be of significance is the extent to which an internal or external orientation is emphasized to the learner. The more the learning situation stresses the idea that the learner's behavior will determine the outcome, the greater the likelihood that the child will develop a belief in internal control. In contrast, learning situations which communicate to the child that what follows his behavior will be determined by chance, luck or other people are likely to encourage a belief in external control. The results of several learning studies have supported this hypothesis (Phares, 1957; James and Rotter, 1958; Rotter, Liverant & Crowne, 1961). Since structured achievement situations, such as the learning of specific skills and competing with a standard of excellence, involve the idea that what occurs is a function of the individual's behavior and competence, achievement learning is apt to be especially important to the development of the belief in internal control. It seems likely that the more a parent initiates and encourages his child's achievement behavior and the development of his skills, the more the child will learn that it is his own behavior, and not external factors, which will determine the reinforcements he receives.

A second aspect of learning situations which may influence beliefs in internal-external control is the extent to which the consequence of the behavior is positive or negative, rewarding or punishing. An individual may be more or less willing to believe that his behavior is responsible for an outcome, depending on the nature of the outcome. When the reinforcement is negative, the individual may disown his responsibility for it in order to defend against the imposed punishment or the insecurity and inadequacy feelings to which this may give rise. On the other hand, where the reinforcement is positive, he may maximize the link between his behavior and the outcome. Thus, in the learning situations of the developing child, the extent to which parents are positively or negatively reinforcing may have a significant bearing on the child's belief in internal and external control. The more positive the parent's reactions to his child's achievement behaviors, the more the child is likely to develop a belief in internal control of reinforcements; and the more negative the parent's reactions, the more a belief in external control will be fostered.

The possibility that positive reinforcement is more conducive to a belief in internal control than negative reinforcement raises another consideration about the antecedents of internal control. If the situation in which learning occurs is an insecure one for

the child, i.e., if it entails a great deal of uncertainty concerning the adequacy of his own behavior and the nature of the consequences which will follow, the child will less readily identify his behavior as causative than if the learning situation is a supportive one. If in the process of learning any skill, the child's errors and mishaps result in impatience and rejection on the part of the parent, the child is apt to feel threatened by the situation, will respond defensively and will attribute the error to an external source rather than to himself. On the other hand, if the parent expresses tolerance and encouragement concerning the child's difficulties, the child will feel secure in the learning situation and is more likely to accept the connection between his behavior and the outcome. Thus a supportive and non-threatening learning situation is apt to foster the child's belief in internal control, while learning that takes place in a hostile, threatening environment is likely to promote belief in external control. Since the parent-child relationship constitutes the context in which much of the child's learning occurs, an affectionate, nurturant relationship between parent and child is more likely to encourage the child's development of a belief in internal control than is a rejecting, hostile relationship.

To summarize, the above reasoning would lead us to expect children's beliefs in internal-external control to be related to

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three general parental antecedents, viz., the nature of the parent-child relationship in which the child's learning occurs, the degree to which the parent encourages achievement striving and acceleration, and the frequency and magnitude of the parents' positive and negative reactions to the child's achievement behaviors. As part of a larger investigation on the development of achievement behavior in children, data were available which bear on the above hypotheses. The data to be reported here have been organized into two separate studies.

Study A

Method

The sample used in the first investigation consisted of 41 children (23 boys, 18 girls) and their mothers all of whom were members of families participating in the Fels Research Institute's Longitudinal Study of Human Development. These families were predominately middle class and the children were somewhat above average intellectually (Mean Stanford-Binet IQ 117.6, S.D. 15.0). The age of the children ranged from 6 years and 10 months to 12 years and 5 months. The children were administered the Intellectual Achievement Responsibility Questionnaire (IAR) orally and individually during their regular attendance at the Fels Summer Day Camp. The IAR constituted the measure of belief in internal-external

control of reinforcements. The form of the scale used in this study consists of 36 forced-choice items each of which describes either a positive or negative achievement experience and is followed by two alternatives. One alternative states that the event was caused by the child's behavior, while the other attributes the cause of the event to an external source. Half of the items describe positive experiences, and the other half, negative experiences. An item posing a positive achievement experience is, "When you do well on a test at school, is it more likely to be (a) because you studied hard, or (b) because the teacher gave an easy test?" An example of a negative achievement item is, "When you find it hard to work arithmetic problems at school, is it usually (a) because the teacher gave you hard problems, or (b) because you haven't tried hard enough to work them?". A more detailed description of the questionnaire can be found in another report (Crandall, Katkovsky and Crandall, 1965).[3]

The IAR yields three scores: an I+ score consisting of the number of internal alternatives the child endorses for positive intellectual reinforcements, such as alternative (a) in the first example cited above; and an I- score consisting of the number of internal alternatives the child endorses for negative intellectual reinforcements, such as (b) in the second example presented; and

the sum of these two scores (Total I). It should be borne in mind that these internal scores are the reciprocal of external scores since each item forces a choice between the two alternative responses. Findings in this study are presented in terms of the internal scores, and any given result indicates an opposite relationship to external scores.

The parent measures in this study consisted of ratings on nine of the Parent Behavior Rating Scales (Baldwin, Kalhorn & Breese 1949) made by a home visitor based on her observations of the interactions of family members. The home visits are an established routine part of the Fels Longitudinal Program and are conducted by a professional worker with psychological training who spends approximately three or four hours in the home twice a year observing the family in normal, everyday activities with emphasis on the interactions of mother and child. The ratings of the mother's behaviors with her child used for this investigation were those made closest to the child's sixth birthday. The nine scales are described below.

General Babying refers to the extent of the parent's nurturance ranging from imposing help on the child despite his lack of need or desire, to refusing to help when the child requests this or demonstrates a need for it. (high = over-helps, low = withholds help)

General Protectiveness is the extent to which the parent shelters the child from, or exposes him to, difficulties, discomforts, obstacles and hazards. (high = sheltering, low = exposing)

Affectionateness refers to the degree to which the parent's behavior with the child is warm and affectionate, or rejecting and hostile. (high = affectionate, low = hostile)

Direction of Criticism pertains to the degree to which the parent gives the child praise and approval, or criticism and disapproval. (high = approval, low = disapproval)

Restrictiveness of Regulations deals with the number and severity of the restrictions, prohibitions and regulations which the parent imposes on the child. (high = restrictiveness, low = freedom)

Severity of Punishment deals with the parent's punitive behavior when the child misbehaves, ranging from frequent and severe penalties which incite fear and resentment in the child to few and mild negative reactions. (high = severe, low = mild)

Clarity of Policy of Regulations and Enforcements refers to the degree to which parental requirements and standards are communicated clearly and explicitly to the child or are vague, unformulated or inconsistent. (high = clear, low = vague)

Coerciveness of Suggestions describes the degree to which the parent demands immediate obedience or leaves compliance to the child's

option; parental attempts toward authoritarian control. (high = mandatory, low = optional)

Accelerational Attempts refers to the degree to which the parent pushes the child to more advanced levels of performance in both essential and special skills, ranging from regular and vigorous training to foster the development of skills to attempts to hold the child back. (high = acceleratory, low = retardatory)

Results

Since distributions of scores on the IAR were not normal, non-parametric statistical techniques were used in all analyses. Spearman Rho correlations between the children's IAR scores and the Parent Behavior Ratings are shown in Table 1. Significant positive relations were found between children's beliefs in internal control of

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Insert Table 1 about here

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reinforcements and their mothers' babying, protectiveness, approval and affectionateness. When separate analyses were made by sex of child, the mothers' behaviors were more closely associated with their sons' beliefs in internal control than with that of their daughters. Separate analyses on the two subscales of the IAR indicate that mothers' expressions of affection did not influence their children's

assumption of credit for success experiences (I+), although their affectionate behaviors were associated with the children's willingness to accept blame (I-).

A few of the other Parent Behavior Ratings showed a correspondence to the IAR scores. A trend was found for daughters' beliefs that internal factors are responsible for their successful experiences to be negatively related to their mothers' coerciveness and punitiveness. Mothers' accelerational attempts related positively to their sons' beliefs in internal control, but the correlations are not especially high and only approach statistical significance. No relationship was found between mothers' accelerational attempts and their daughters' beliefs concerning internal-external control. In addition, the restrictiveness of regulations imposed by the mothers on their children and the clarity of their policies did not relate to either boys' or girls' beliefs in internal-external control of reinforcements.

Study B

Method

The second investigation was concerned with data obtained from 40 families, 20 girls and 20 boys and each child's mother and father. There was an overlap of approximately one half of the

children and mothers in this study with those in the sample for Study A. The additional families were not members of the Fels Research Institute's Longitudinal Study, but had been especially recruited for an investigation of the development of achievement behavior in children. The educational level of the parents of the sample for Study B was above current national norms and the socio-economic levels of these families represented all classes except the lower-lower class as assessed by Hollingshead's Two Factor Index of Social Position (Hollingshead, 1957). The children were distributed equally in the second, third and fourth grades and were intellectually superior to national norms with a mean Stanford-Binet IQ of 124 and S.D. of 16.

The same form of the IAR as that used in Study A was administered orally and individually to these children in conjunction with a number of additional achievement measures with which the present report is not involved. Data concerning the behavior of both the mothers and fathers of the children were obtained from personal interviews and from the administration of the Parent Reaction Questionnaire.

The parents of the children were interviewed separately but concurrently about several aspects of their relationships with their children. The interviews were semi-structured, lasted approximately

two and one half hours and were electronically recorded. The variables pertinent to the present study which were rated from information obtained in these interviews consisted of four characteristics of the parent-child relationship. A description of these follows.

(a) Affection referred to the amount of overt affection and acceptance the parent appeared to feel and reported expressing toward his child.

(b) Nurturance assessed the frequency and quality of emotional support and instrumental help given the child by the parent.

(c) Dominance dealt with the frequency and intensity of the parent's attempts to influence and control the child by establishing and enforcing rules and regulations.

(d) Rejection referred to the parent's dissatisfaction with the behavior and personality of his child and to the frequency and intensity of his direct criticisms and punishments of his child.

Ratings of the variables were made by a psychologist who had not participated in the interviews. Reliability of the ratings was determined by having an independent rater rate 20 randomly selected mother interviews, and another person rate 20 randomly selected father interviews. The reliability coefficients are presented in Table 2.

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Insert Table 2 about here

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The Parent Reaction Questionnaire was designed to assess the parent's reported reactions to his child's achievement behaviors in four achievement areas, intellectual, physical skills, mechanical and artistic. The questionnaire consisted of 48 items each describing a typical situation in which a child exhibits an achievement behavior which is likely to elicit an evaluative response on the part of the parent. Each item was followed by a number of alternatives from which the parent was asked to select his two most typical reactions to his child in situations similar to that described and to indicate by ranking them, which of the two was more often used. The alternatives to each item included reactions of a positive nature (praise), negative reactions (criticism), and a neutral reaction. An example of an item indicating the positive, negative and neutral alternatives is:

When X was doing schoolwork at home:

(a) I told him I am very pleased with his progress. (Positive)

(b) I showed him some of his mistakes. (Negative)

(c) I told him to try to work harder at it than he did before. (Negative)

(d) I was too busy to pay much attention to what he was doing. (Neutral)

(e) I told him I am glad he is interested in his school work. (Positive)

The questionnaire was scored for the number and ranking of positive and negative reactions the parent selected. Only responses to the 12 items concerned with reactions to achievement behavior in the intellectual area were used in this study since the IAR deals exclusively with intellectual achievement situations.

Results

The analyses of the IAR scores and the interview ratings of the parent-child relationship are shown in Table 3. Consistant with the findings in Study A, mothers' nurturance toward their sons was

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Insert Table 3 about here

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positively correlated with the degree to which their sons' assumed responsibility for what happens to them. In particular, the support and help which the mothers provide their sons appear to promote their sons' willingness to assume blame for failures. The rejection of both parents has greater impact on the girls' beliefs in internal-external responsibility than on those of the boys. Girls with more

rejecting mothers and fathers were likely to believe that external factors, rather than their own behaviors, caused their intellectual reinforcements. Also, mothers who were highly dominating and controlling with their daughters had daughters less likely to believe in their own control of reinforcements than did girls whose mothers were not dominating.

While mothers' affection and nurturance are generally positively correlated with their son's beliefs in internal control, the reverse was found between fathers and their daughters. That is, the more affectionate and nurturant the father, the greater his daughter's belief in external causes of her failures in intellectual situations.

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Insert Table 4 about here

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Correlations between scores on the Parent Reaction Questionnaire and the IAR appear in Table 4. The strongest relationship is shown between the girls' self-responsibility for their intellectual successes and the amount of positive reinforcement given them by their fathers. For the boys, the correlations between parental reactions do not reach significant levels, but they reveal consistantly positive relationships between parental praise and reward of their sons' achievement behaviors and their sons' beliefs in internal

control, and consistantly negative correlations between parental negative reactions and sons' internal scores on the IAR. When the boys and girls are combined, the analyses indicate that fathers' positive reactions encourage, and their critical or negative reactions discourage, the development of beliefs in internal control in both sons and daughters. Mothers' praise and criticism, however, appear to have little effect on their children's beliefs in internal-external control of reinforcements.

Discussion

Several trends were found in the two studies which are consistant with the ideas described earlier in this paper. The relationships which stand out most strongly are between children's beliefs in internal control of reinforcements and the degree to which their parents are protective, nurturant, approving and non-rejecting. Data from the Parent Behavior Ratings, the interviews and the questionnaires support the general point that the parent who maintains a supportive, positive relationship with his child is more likely to foster his child's belief in internal control than is the parent whose relationship with his child is punitive, rejecting and critical. These findings are consistant with those reported by Chance and lend support to the hypothesis that learning which occurs in a permissive, non-threatening context facilitates the development of belief in internal control.

It is interesting to note that the correlations between parents' babying, protectiveness, affectionateness and nurturance are somewhat higher with I- scores than with I+ scores. Apparently the security provided by the loving, non-threatening parent is especially necessary for the child to be able to internalize the responsibility for the negative reinforcements he receives. Conversely, a mother's rejecting, punitive and dominating behavior encourages her daughter to believe that factors outside her own control are responsible for her rewards in intellectual situations, although such "negative" maternal behaviors seem to have little impact on sons' beliefs in internal control. Possibly an unpleasant and threatening relationship between mother and daughter provokes inferiority feelings in the young girl, and consequently she finds it difficult to assume credit for her success experiences. On the other hand, too affectionate and nurturant paternal behaviors seemed to militate against the development of the girls' abilities to assume responsibility for their own failures. It may be that the father who is highly loving and helpful to his daughter intentionally or inadvertantly encourages external thinking to provide her with a cushion to defend herself against failures. Maternal affection and nurturance on the other hand, may be tempered more by reality factors and be less conducive to encouraging excuses and external thinking on the part of the daughter.

In general, stronger support was found for mothers' influence than fathers' on the degree to which children regarded the reinforcements they received as caused by their own behavior. It may be that the method of data collection influenced the differential strength of the findings for mothers and fathers; all of the data concerning the father-child relationships was based on self-report measures, while the additional Parent Behavior Ratings on the mothers were made from direct observations of the mother-child interactions. However, it is also possible that the mother-child relationship is, in fact, the more important for the child's development of a belief in internal control since more of the child's learning occurs in the presence of the mother than of the father. Nevertheless, it will be remembered that mother-son relationships from the Parent Behavior Ratings were stronger than those of mothers and daughters and that father-daughter relationships from the interview data were stronger than those which obtained between fathers and sons. Thus, there is the possibility that cross-sex relationships between parent and child may be more influential in the development of the child's belief in internal control than same-sex relationships.

Those characteristics of the parent-child relationship which predicted the IAR scores of the boys differed somewhat from those which predicted the girls' IAR scores. Boys' beliefs in internal

control correlated significantly only with positive maternal behaviors and not with mothers' dominance, rejection, restrictiveness and punitiveness. On the other hand, the internal control scores of the girls did not correlate to as great an extent as those of the boys to mothers' nurturance, affection and protection, and were more highly associated with negative behaviors on the part of both mothers and fathers than were those of the boys. In the study cited earlier by Chance, similar sex differences were found in that the correlations between IAR and mothers' permissiveness and flexibility were significant for boys but not for girls. Thus it appears that different characteristics of the parent-child relationship are important in the development of beliefs in internal control for boys and for girls. Apparently boys are more likely to develop an internal orientation if they experience maternal love and support, while girls are more likely to develop an external orientation if they experience parental rejection and authoritarian control.

The degree to which the parents reacted positively or negatively to their child's behavior was measured by the Parent Reaction Questionnaire and by one of the Parent Behavior Ratings, Direction of Criticism. The latter indicated that the more positive and approving the mother's reactions to her child, the greater the child's internal orientation to what happens to him. The relationship between maternal approval and children's beliefs in internal

control was more pronounced for boys than for girls, but the correlations were in the same direction for both sexes and were highly significant for the combined sample of boys and girls. In contrast, the mothers' reactions as measured by the Parent Reaction Questionnaire did not relate significantly to children's IAR scores. The data on fathers from the questionnaire measure, however, were consistant with the hypothesis that parental positive reactions are more likely to promote children's beliefs in internal control than parental negative reactions. The more a father praises and rewards his daughter's intellectual achievement behaviors, the greater the likelihood that his daughter will assume responsibility for her intellectual success experiences. Conversely, the more critical and negative fathers are to their children, the less the children are likely to develop beliefs in their own responsibility for and control over their intellectual experiences.

Only minor support was found for the hypothesis that positive relations would be found between parents' emphasis on achievement and children's beliefs in internal-external control. The correlations between Parent Behavior Rating, Accelerational Attempts, and the IAR scores pertain to this hypothesis. Only one of the correlations was statistically significant, viz., between mother's accelerational attempts with their sons and sons' I- score. None

of the analyses between mothers' encouragement of achievement and skill and their daughters' IAR scores even approached significance. Thus it appears that the degree of stress parents place on achievement experiences may be more influential in determining boys' beliefs in internal control than the beliefs of girls.

The studies reported here investigated three general parental antecedents of children's beliefs in internal-external control. These were the nature of the parent-child relationship, the extent of a parent's reported positive and negative reactions to his child, and the parent's accelerational attempts and fostering of his child's achievement. It is probable that many other aspects of parental behaviors play a part in the development of children's beliefs that they, rather than others, control the reinforcements they receive. Three parental influences which merit future investigation are, first, the direct teaching of ideas concerning causation by the parent, second, the parent's reinforcement of his child's verbalizations of internal and external beliefs and, third, the model which the parent presents to the child with respect to his own internal-external orientation.

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Footnotes

1. This study was supported by USPH Grants MH - 02238 and FR - 00222.

2. The authors gratefully acknowledge the assistance and suggestions of Anne Preston in carrying out the studies reported in this paper.

3. The questionnaire described by Crandall, Katkovsky & Crandall, 1965, is a minor revision of the scale used in this study and Study B. In the revision minor changes were made in the wording of items, two items attributing events to "luck" were omitted, and the source of external control described in all items was other persons in the child's environment.

Table 1

Parent Behavior Ratings and Children's IAR Scores

Boys N = 23	I+	I-	Total I
General Babying	.34	.62**	.54**
General Protectiveness	.52*	.71***	.66***
Affectionateness	.18	.48*	.39#
Direction of Criticism (approval)	.45*	.65***	.63**
Restrictiveness of Regulations	.05	.14	.07
Severity of Punishment	-.11	-.14	-.17
Clarity of Policy	.13	.04	.05
Coerciveness of Suggestions	.01	-.02	-.01
Accelerational Attempt	.32	.38#	.33
Girls N = 18			
General Babying	.39	.42#	.45#
General Protectiveness	.29	.50*	.45#
Affectionateness	.09	.42#	.35
Direction of Criticism (approval)	.29	.39	.41#
Restrictiveness of Regulations	-.28	.22	-.02
Severity of Punishment	-.43#	.11	-.20
Clarity of Policy	-.11	-.34	-.17
Coerciveness of Suggestions	-.47*	-.14	-.39
Accelerational Attempt	-.01	-.04	-.08

Table 1 (continued)

Total Sample N = 41	I+	I-	Total I
General Babying	.44**	.68***	.64***
General Protectiveness	.49**	.67***	.64***
Affectionateness	.14	.46**	.38*
Direction of Criticism (approval)	.44**	.56***	.57***
Restrictiveness of Regulations	-.06	.25	.09
Severity of Punishment	-.21	.00	-.13
Clarity of Policy	-.04	-.20	-.13
Coerciveness of Suggestions	-.12	.02	.07
Accelerational Attempt	.21	.22	.17

\# $p < .10$ (two-tailed)

* $p < .05$ (two-tailed)

** $p < .01$ (two-tailed)

*** $p < .001$ (two-tailed)

Table 2

Inter-rater Reliabilities of Parent Interview Variables

Parent Variable	Mothers	Fathers
Affection	.87	.76
Nurturance	.68	.78
Dominance	.48	.75
Rejection	.61	.85

Table 3

Parent-Child Relationship Variables and Children's IAR Scores

Boys N = 20	I+	I-	Total I
Mother's affection	.28	.29	.31
Mother's nurturance	.14	.40#	.44#
Mother's dominance	.21	-.14	.02
Mother's rejection	.17	.04	.06
Father's affection	-.16	.25	.16
Father's nurturance	.01	.27	.23
Father's dominance	.03	.21	.18
Father's rejection	-.33	.03	-.03
Girls N = 20			
Mother's affection	.19	.05	.16
Mother's nurturance	.17	-.33	-.11
Mother's dominance	-.09	-.31	-.43#
Mother's rejection	-.66**	-.20	-.61**
Father's affection	.37	-.48*	-.13
Father's nurturance	.34	-.40#	-.11
Father's dominance	-.20	-.27	-.29
Father's rejection	-.45*	-.13	-.42#

Table 3 (continued)

Total Sample N = 40			
Mother's affection	.16	.12	.13
Mother's nurturance	.12	.09	.19
Mother's dominance	.06	-.21	-.15
Mother's rejection	-.20	-.05	-.24
Father's affection	.05	-.03	.04
Father's nurturance	.21	-.08	.08
Father's dominance	-.10	.01	-.02
Father's rejection	-.41**	-.12	-.26#

# p < .10; two-tailed

* p < .05; two-tailed

** p < .01; two-tailed

Table 4

Parent Reaction Questionnaire and Children's IAR Scores

Boys N = 20	I+	I-	Total I
Mothers' positive reactions	.20	.18	.22
Fathers' positive reactions	.18	.27	.25
Mothers' negative reactions	-.18	-.21	-.24
Fathers' negative reactions	-.33	-.39#	-.42#
Girls N = 20			
Mothers' positive reactions	-.03	.03	-.01
Fathers' positive reactions	.59**	-.22	.25
Mothers' negative reactions	-.11	.12	.01
Fathers' negative reactions	-.27	-.27	-.25
Total Sample N = 40			
Mothers' positive reactions	.08	.11	.12
Fathers' positive reactions	.35*	.13	.27#
Mothers' negative reactions	-.12	-.02	-.09
Fathers' negative reactions	-.30#	-.40*	-.41**

# $p < .10$; two-tailed

* $p < .05$; two-tailed

** $p < .01$; two-tailed